

Abstract

With the development of social media, especially that has a feature to upload photos and images cause many of images uploaded on social media. This uploaded images could be used for developing content-base image retrieval system. However, many of the uploaded images are not labeled or tagged in accordance with the content of the uploaded image, so it is very difficult to manage. To be able to realize the content-based image retrieval system then each object in the image must be recognized first. If the annotation of the object is done manually it will be very difficult because it will take a long time and meaning of each person toward an image is different so it will cause the recognition of images is subjective. Therefore, automatic image annotation system was built. In this research, we proposed a Convolutional Neural Network method to handle multilabel image annotation system. *Convolutional Neural Network* method has been shown to have a good performance in the case of image classification, it is shown with performance in classification cases in ILSVRC which is better every years. The highest performance toward test data in this research is 81.24%.

Keywords: *Convolutional Neural Network*, image annotation, multilabel